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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,518	07/12/2002	Joe F. Zhou	42390.P9657	2646

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John P Ward
Blakely Sokoloff Taylor & Zafmann
7th Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025

EXAMINER
NGUYEN, CINDY

ART UNIT	PAPER NUMBER
2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/018,518	ZHOU ET AL.
	Examiner	**Art Unit**	
	Cindy Nguyen	2161	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *35, 36* is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 20070417

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

04/11/06 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claim 7 recites the limitation "the semantic relationships". There is insufficient

antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the new search term". There is insufficient

antecedent basis for this limitation in the claim.

Claim 26 recites the limitation "the semantic relationships". There is insufficient

antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "the new search term". There is insufficient

antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "reformulating the new query". There is insufficient

antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "using a predetermined algorithm". There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 19, 22 and 27 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 19-30 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Regarding claim 19, this claimed subject matter lacks a practical application of a

judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon)

since it fails to produce a useful, concrete and tangible result. Specifically, the claimed

subject matter does not produce a tangible result because the claimed subject matter

fail to produce a result that is limited to having a real world value rather than a result

that may be interpreted to be abstract in nature as, for example, a thought, a

computation or manipulated data. More specifically, the claimed subject matter

provides for a concept network that includes search terms and related terms that are

linked together based on semantic relationships and appear together in at least one

sentence in a web page. This produced result remains in the abstract and, thus, fails to

achieve the required status of having real world value. It is neither computer

components nor statutory processes, as they are not "acts" being performed, such

claimed .

     Claims 20 and 21, fully incorporating the deficiencies of their parent claim are

likewise rejected.

     Regarding claim 22-30, a computer-readable medium that provides instructions.

"Computer-readable medium" as defined in the specification (page 20, 2nd paragraph) includes

other form of propagated signals (e.g., carrier waves, infrared signals, digital signals, etc.); etc.

A signal encoded with functional descriptive material does not fall within any of the categories

of patentable subject matter. Therefore, claim 22-30 are not statutory (As set forth in § 101, a

claimed signal is clearly not a process under § 101 because it is not a series of steps. A

claimed signal has no physical structure, does not itself perform any useful, concrete and

tangible result, and does not fit within the definition of a machine. A claimed signal is not

matter, but a form or energy, and therefore is not a composition of matter or product.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 11-15, 22-26, 31 and 33-34 are rejected under 35 U.S.C. 102(e) as

being anticipated by "The Spider's Apprentice" written by Linda Barlow,

http://web.archive.org/web/20000815211428/http://www.monash.com/spidap4.html

(hereafter Linda).

Regarding claims 1 and 22, Linda discloses: A method and a machine-readable

medium that provides instructions comprising:

receiving a search term for a query (i.e., in section keyword searching, page 1,

1st paragraph, Linda);

searching a network of concept terms for terms related to the search term (i.e., a

concept based search returns hits on documents that are about the subject/thema

you're exploring, even if the words in the document don't precisely match the words you

enter into the query, section concept-based searching, page 2, 1st paragraph, Linda),

wherein the network of concept terms is associated with a subject matter domain having

a plurality of predetermined relevant terms (i.e., for example, the word heart, when used

in the medical/health context, would be likely to appear with such words as coronary,

artery, lung, stroke, cholesterol, pump, blood, attack, and arteriosclerosis. If the word

heart appears in a document with others words such as flowers, candy, love, passion,

and valentine, a very different context is established, and the search engine returns hilts

on the subject of romance, section Concept-based search, page 2, Linda), wherein

each related term and the search term appear together in at least one sentence in a

web page residing on websites located on servers connected to and wherein the web

page includes at least one of the relevant terms (i.e., for example, the word heart, when

used in the medical/health context, would be likely to appear with such words as

coronary, artery, lung, stroke, cholesterol, pump, blood, attack, and arteriosclerosis. If

the word heart appears in a document with others words such as flowers, candy, love,

passion, and valentine, a very different context is established, and the search engine

returns hilts on the subject of romance, page 2, section Concept-based search, , 5th

paragraph Linda);

reformulating the query using the search term and the related terms, before

performing a search for documents based on the search term(i.e., search refining

options differ from one search engine to another, but some of the possibilities include

the ability to search on more than one word, to give more weight to one search term

than you give to another, and to exclude words that might be likely to muddy the results,

you might also be able to search on proper names, on phrases, and on words that are

found within a certain proximity to other search terms, section Refining your search,

page 3, 2nd paragraph, Linda);

searching a local database for data terms that match the search term and the

related terms, wherein the data terms are generated based on occurrence frequencies

within a documents residing on the websites (i.e., some search engines consider both

the frequency and the positioning of keywords to determine relevancy, reasoning that if

the keywords appear early in the document, or in the headers, …it also takes into

consideration whether the documents that emerge as hits are frequently linked to other

documents on the web, reasoning that if other folks consider them important, section

Relevancy rankings, 5th paragraph , Linda);

and in response to matching data terms with the search terms and related terms

corresponding to the data terms, retrieving the documents from the respective websites

(i.e., the documents that emerge as hits are frequently linked to other documents on

the web, reasoning that if other folks consider them important, section Relevancy

rankings, 5th paragraph , Linda).

Regarding claims 2 and 23, all the limitations of these claims have been noted in

the rejection of claims 1 and 22 above, respectively. In addition, Linda disclose:

displaying the retrieved documents, the search terms and the related terms, wherein at

least one of the related terms includes a link, when activated, a further search of

concept terms is conducted and one or more further related terms are presented, and

wherein searching the local database and retrieving the documents are literately

performed based on the further related terms (i.e., for example, Lycos ranks hits

according to how many times your keywords appear in their indices of the document

and in which fields they appear... hits are frequently linked to other documents on the web, section Relevancy rankings, 5th paragraph, Linda).

Regarding claims 3 and 24, all the limitations of these claims have been noted in the rejection of claims 1 and 22 above, respectively. In addition, Linda discloses: further comprising generating a summary of the documents for the searched terms that match the search term and the related terms (i.e., most of the search engines returns results with confidence or relevancy rankings, in other words, they list the hits according to how closely they think the results match the query, page 4, section Relevancy Rankings, 1st paragraph, Linda).

Regarding claim 4, all the limitations of this claim have been noted in the rejection of claim 3. In addition, Linda discloses: wherein the summary includes the searched terms and a beginning portion of the documents (i.e., for example, Lycos ranks hits according to how may times you keywords appear in their indices of the document and in which fields they appear (i.e., in headers, titles or text), page 4, section Relevancy Rankings, 5th paragraph, Linda).

Regarding claim 5, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Linda discloses: wherein the network is the Internet (page 3, section Refining your search, 3rd paragraph, Linda).

Regarding claims 6 and 25, all the limitations of these claims have been noted in the rejection of claims 1 and 22 above, respectively. In addition, Linda disclose: wherein the network of concept terms includes links between related terms, wherein the links are based on semantic relationship (i.e., for example, the word heart, when used in the

medical/health context, would be likely to appear with such words as coronary, artery,

lung, stroke, cholesterol, pump, blood, attack, and arteriosclerosis. If the word heart

appears in a document with others words such as flowers, candy, love, passion, and

valentine, a very different context is established, and the search engine returns hits on

the subject of romance, page 2, section Concept-based search, , 5th paragraph Linda).

Regarding claims 7 and 26 , all the limitations of these claims have been noted in the

rejection of claims 1 and 22 above, respectively. In addition, Linda discloses: wherein the

semantic relationships are selected from a group consisting of canonical (logical form),

synonym, hyponym, hypernym, part (i.e., for example, the word heart, when used in the

medical/health context, would be likely to appear with such words as coronary, artery, lung,

stroke, cholesterol, pump, blood, attack, and arteriosclerosis. If the word heart appears in a

document with others words such as flowers, candy, love, passion, and valentine, a very

different context is established, and the search engine returns hits on the subject of romance,

page 2, section Concept-based search, , 5th paragraph Linda).

Regarding claim 8, all the limitations of this claim have been noted in the

rejection of claim 1. In addition, Linda discloses: wherein related terms are more

specific than the search term (i.e., for example, the word heart, when used in the

medical/health context, would be likely to appear with such words as coronary, artery,

lung, stroke, cholesterol, pump, blood, attack, and arteriosclerosis. If the word heart

appears in a document with others words such as flowers, candy, love, passion, and valentine, a very different context is established, and the search engine returns hits on the subject of romance, page 2, section Concept-based search, , 5th paragraph Linda);

Regarding claim 9, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Linda discloses: wherein the occurrence frequencies include mutuality between words within the document (i.e., some search engines consider both the frequency and the positioning of keywords to determine relevancy, reasoning that if the keywords appear early in the document, or in the headers, …it also takes into consideration whether the documents that emerge as hits are frequently linked to other documents on the web, reasoning that if other folks consider them important, section Relevancy rankings, 5th paragraph , Linda).

Regarding claim 11, all the limitations of these claims have been noted in the rejection of claim 10 above, respectively. In addition, Linda disclose: wherein receiving the search term for the query includes receiving the search term for the query based on the displaying of the search term and the related items in a prior process (i.e., search refining options differ from one search engine to another, but some of the possibilities include the ability to search on more than one word, to give more weight to one search term than you give to another, and to exclude words that might be likely to muddy the results, you might also be able to search on proper names, on phrases, and on words that are found within a certain proximity to other search terms, section Refining your search, page 3, 2nd paragraph, Linda).

. Regarding claim 13, all the limitations of these claims have been noted in the rejection of claim 10 above, respectively. In addition, Linda discloses: wherein reformulating the new query includes combining the new search term and the new related terms together using search operators (section Refining your search, page 3, 5th −10th paragraphs, Linda).

Regarding claim 14, all the limitations of this claim have been noted in the rejection of claim 13. In addition, Linda discloses: wherein the search operators are selected from the group consisting of AND, OR, NOT and NEAR, wherein the NEAR operator is satisfied when the new search term and at least one of the new related terms occur within a predetermine number of words within a sentence of a document (section Refining your search, page 3, 5th −10th paragraphs, Linda).

Regarding claim 31, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Linda discloses: wherein the related terms are different than the search term and have similar meaning to the search term (i.e., for example, the word heart, when used in the medical/health context, would be likely to appear with such words as coronary, artery, lung, stroke, cholesterol, pump, blood, attack, and arteriosclerosis. If the word heart appears in a document with others words such as flowers, candy, love, passion, and valentine, a very different context is established, and the search engine returns hits on the subject of romance, page 2, section Concept-based search, , 5th paragraph Linda)..

Regarding claim 32, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Linda discloses: wherein the search tem includes a

name of an organization, and wherein the related terms include at least one of a name

of subsidiaries of the organization, a product name of the organization, and a stock

symbol of the organization (i.e., in this example, the phrase" the company's" is an

anaphoric reference back to IBM, col. 18, lines 54-67, Liddy).

Regarding claim 33, all the limitations of this claim have been noted in the rejection of

claim 1 above. In addition, Linda discloses: wherein the data terms are generated based on

mutual information associated with the search term and the related terms using a

predetermined algorithm (i.e., some search engines consider both the frequency and the

positioning of keywords to determine relevancy, reasoning that if the keywords appear early in

the document, or in the headers, ...it also takes into consideration whether the documents that

emerge as hits are frequently linked to other documents on the web, reasoning that if other

folks consider them important, section Relevancy rankings, 5th paragraph , Linda).

Regarding claim 34, all the limitations of this claim have been noted in the rejection of

claim 1 above. In addition, Linda discloses: wherein the mutual information is determined

based on one or more weight factors of the search term and he related terms, the one or more

weight factors representing occurrence frequencies of the respective search term, related

terms and a combination of both search term and the related terms (i.e., some search engines

consider both the frequency and the positioning of keywords to determine relevancy, reasoning

that if the keywords appear early in the document, or in the headers, ...it also takes into

consideration whether the documents that emerge as hits are frequently linked to other

documents on the web, reasoning that if other folks consider them important, section

Relevancy rankings, 5th paragraph , Linda).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a
> person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.

1.   Claims 10, 12 15-21, 27-30 and 32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Linda Barlow, copyright, 1996-1999. All rights reserved. Updated**

04/11/2000.

http://web.archive.org/web/20000815211428/http://www.monash.com/spidap4.html

(hereafter Linda) in Liddy et al. (US 6026388) (hereafter Liddy).

        Regarding claims 10, 15 and 27 all the limitations of these claims have been

noted in the rejection of claims 1 and 2. It is therefore rejected as set forth above.

However, Linda didn't disclose: recursively performing the following until desired

documents are found . On the other hand, Benitez-Jimenez discloses: recursively

performing the following until desired documents are found (i.e., system reformulate a

new query representation based on the subject contents of the marked documents

along with the original query. With the revised query the user may be asked to confirm

the query representation, as was the case with the original query, dependent on user

selected preference settings…, col. 35, lines 26-40, Liddy). Thus, at the time invention

was made, it would have been obvious to a person of ordinary skill in the art to include

the steps for recursively searching in the system of Linda as taught by Benitez-

Jimenez. The motivation being to enable the search system to reformulate a new query

representation based on the subject contents of the marked documents, along with the

original query, retrieved all documents that relevant to the revised query (col. 35, lines

26-40, Liddy).

Regarding claims 12, and 16, all the limitations of these claims have been noted

in the rejection of claims 10 and 15 above, respectively. In addition, Linda discloses:

wherein the new search term is a related term from a prior search of the network of

concept terms (i.e., search refining options differ from one search engine to another, but

some of the possibilities include the ability to search on more than one word, to give

more weight to one search term than you give to another, and to exclude words that

might be likely to muddy the results, you might also be able to search on proper names,

on phrases, and on words that are found within a certain proximity to other search

terms, section Refining your search, page 3, 2nd paragraph, Linda)..

Regarding claim 17, all the limitations of this claim have been noted in the

rejection of claims 15 and 13 above. It is therefore rejected as set forth above.

Regarding claim 18, all the limitations of this claim have been noted in the

rejection of claims 17 and 14 above. It is therefore rejected as set forth above.

Regarding claim 19, all the limitations of these claims have been noted in the

rejection of claim 1 above. However, Linda is silence to disclose: database that

includes data terms (i.e., proper noun expansion database, wherein the data terms are

from documents residing on websites located on servers across a network . On the

other hand, Liddy discloses: an apparatus comprising: a database that includes data

terms (i.e., proper noun expansion database (col. 18, lines 7-12 , Liddy), wherein the

data terms are generated (i.e., to generate these synonyms, a CN database having a

list of CN synonyms, col. 18, lines 36-47) from documents residing on websites located

on servers across a network (col. 6, lines 46-49; and col. 18, lines Liddy). Thus, at the

time invention was made, it would have been obvious to a person of ordinary skill in the

art to include a database that includes data terms, wherein the data terms are

generated from documents residing on websites located on servers across a network

in the system of Linda as taught by Liddy. The motivation being to enable the search

system have an expansion database, helpful for refined the search term include the

ability to search on more than one word, to give more weight to one search term.

In addition, Linda discloses: a concept network that: includes search terms and

related terms that are linked together based on semantic relationships (i.e., for example,

Lycos ranks hits according to how many times your keywords appear in their indices of

the document and in which fields they appear... hits are frequently linked to other

documents on the web, section Relevancy rankings, 5th paragraph, Linda), the search

terms and the related terms to locate portions of the documents based on a match

between the searchable term, and the related terms and the data terms stored in the

database (i.e., most of the search engines returns results with confidence or relevancy

rankings, in other words, they list the hits according to how closely they think the results

match the query, page 4, section Relevancy Rankings, 1st paragraph, Linda).

Regarding claim 20, all the limitations of these claims have been noted in the rejection

of claim 22 above, respectively. In addition, Linda discloses: wherein the semantic

relationships are selected from a group consisting of canonical (logical form), synonym,

hyponym, hypernym, part (i.e., for example, the word heart, when used in the medical/health

context, would be likely to appear with such words as coronary, artery, lung, stroke,

cholesterol, pump, blood, attack, and arteriosclerosis. If the word heart appears in a document

with others words such as flowers, candy, love, passion, and valentine, a very different context

is established, and the search engine returns hits on the subject of romance, page 2, section

Concept-based search, , 5th paragraph Linda).

Regarding claim 21, all the limitations of this claim have been noted in the

rejection of claim 18. In addition, Linda discloses: wherein related terms are more

specific than the search term (i.e., for example, the word heart, when used in the

medical/health context, would be likely to appear with such words as coronary, artery, lung, stroke, cholesterol, pump, blood, attack, and arteriosclerosis. If the word heart appears in a document with others words such as flowers, candy, love, passion, and valentine, a very different context is established, and the search engine returns hits on the subject of romance, page 2, section Concept-based search, , 5th paragraph Linda).

Regarding claim 28, all the limitations of these claims have been noted in the rejection of claim 27 above, respectively. In addition, Linda disclose: wherein receiving the search term for the query includes receiving the search term for the query based on the displaying of the search term and the related items in a prior process (i.e., search refining options differ from one search engine to another, but some of the possibilities include the ability to search on more than one word, to give more weight to one search term than you give to another, and to exclude words that might be likely to muddy the results, you might also be able to search on proper names, on phrases, and on words that are found within a certain proximity to other search terms, section Refining your search, page 3, 2nd paragraph, Linda).

Regarding claim 29, all the limitations of these claims have been noted in the rejection of claim 27 above, respectively. In addition, Linda discloses: wherein the new search term is a related term from a prior search of the network of concept terms (i.e., search refining options differ from one search engine to another, but some of the possibilities include the ability to search on more than one word, to give more weight to one search term than you give to another, and to exclude words that might be likely to

muddy the results, you might also be able to search on proper names, on phrases, and

on words that are found within a certain proximity to other search terms, section

Refining your search, page 3, 2nd paragraph, Linda).

. Regarding claim 30, all the limitations of these claims have been noted in the

rejection of claim 27 above, respectively. In addition, Linda discloses: wherein

reformulating the new query includes combining the new search term and the new

related terms together using search operators (section Refining your search, page 3, 5th

–10th paragraphs, Linda).

Regarding claim 32, all the limitations of this claim have been noted in the

rejection of claim 1. In addition, Linda/Liddly discloses: wherein the search tem

includes a name of an organization, and wherein the related terms include at least one

of a name of subsidiaries of the organization, a product name of the organization, and

a stock symbol of the organization (i.e., in this example, the phrase" the company's" is

an anaphoric reference back to IBM, col. 18, lines 54-67, Liddy). Thus, at the time

invention was made, it would have been obvious to a person of ordinary skill in the art

to include wherein the search tem includes a name of an organization, and wherein the

related terms include at least one of a name of subsidiaries of the organization, a

product name of the organization, and a stock symbol of the organization in the system

of Linda as taught by Liddly. The motivation being to enable the search system have

an expansion database, helpful for refined the search term include the ability to search

on more than one word, to give more weight to one search term.

Allowable Subject Matter

Claims 35 and 36 are allowed in light of the applicant arguments and in light of the prior art made of record.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to discloses or suggest wherein the mutual information (MI) of the first term x and the second terms y is determined by $M1(x, y) = f(x,y) / f(x) + f(y) - f(x, y)$, wherein $f(x, y)$ corresponds to an occurrence frequency of both search term and the related terms, wherein $f(x)$ corresponds to an occurrence frequency of both the first term and the second term, wherein $f(y)$ corresponds to an occurrence frequency of the second terms as recited in claims 35 and 36.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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Cindy Nguyen